FIG. 11D, on screen movements **126**D downwards are implemented when the thumb **138** is placed on button zone **124**D.

[**0097**] It should be noted that the configuration shown in FIGS. **11**A-D is not a limitation and that the media player may be held a variety of ways. For example, in an alternate embodiment, the media device may comfortably held by one hand while being comfortably addressed by the other hand. This configuration generally allows the user to easily actuate the touch pad with one or more fingers. For example, the thumb and rightmost fingers (or leftmost fingers if left handed) of the first hand are used to grip the sides of the media player while a finger of the opposite hand is used to actuate the touch pad. The entire top surface of the touch pad is accessible to the user's finger.

[**0098**] FIGS. **12** is a partially broken away perspective view of an annular capacitive touch pad **150**, in accordance with one embodiment of the present invention. The annular capacitive touch pad **150** is arranged to detect changes in capacitance as the user moves, taps, rests an object such as a finger on the touch pad **150**. The annular capacitive touch pad **150** is formed from various layers including at least a label layer **152**, an electrode layer **154** and a circuit board **156**. The label layer **152** is disposed over the electrode layer **154** and the electrode layer **154** is disposed over the circuit board **156**. At least the label **152** and electrode layer **154** are annular such that they are defined by concentric circles, i.e., they have an inner perimeter and an outer perimeter. The circuit board **156** is generally a circular piece having an outer perimeter that coincides with the outer perimeter of the label **152** and electrode layer **154**. It should be noted, however, that in some cases the circuit board **156** may be annular or the label **152** and electrode layer **154** may be circular.

[**0099**] The label layer **152** serves to protect the underlayers and to provide a surface for allowing a finger to slide thereon. The surface is generally smooth so that the finger does not stick to it when moved. The label layer **152** also provides an insulating layer between the finger and the electrode layer **154**. The electrode layer **154** includes a plurality of spatially distinct electrodes **158** that have positions based on the polar coordinate system. For instance, the electrodes **158** are positioned angularly and/or radically on the circuit board **156** such that each of the electrodes **158** defines a distinct angular and/or radial position thereon. Any suitable number of electrodes **158** may be used. In most cases, it would be desirable to increase the number of electrodes **158** so as to provide higher resolution, i.e., more information can be used for things such as acceleration. In the illustrated embodiment, the electrode layer **154** is broken up into a plurality of angularly sliced electrodes **158**. The angularly sliced electrodes **158** may be grouped together to form one or more distinct button zones **159**. In one implementation, the electrode layer **154** includes about **1024** angularly sliced electrodes that work together to form **128** angularly sliced button zones **159**.

[**0100**] When configured together, the touch pad **150** provides a touch sensitive surface that works according to the principals of capacitance. As should be appreciated, whenever two electrically conductive members come close to one another without actually touching, their electric fields interact to form capacitance. In this configuration, the first electrically conductive member is one or more of the electrodes **158** and the second electrically conductive member is the finger of the user. Accordingly, as the finger approaches the touch pad **150**, a tiny capacitance forms between the finger and the electrodes **158** in close proximity to the finger. The capacitance in each of the electrodes **158** is measured by control circuitry **160** located on the backside of the circuit board **156**. By detecting changes in capacitance at each of the electrodes **158**, the control circuitry **160** can determine the angular and/or radial location, direction, speed and acceleration of the finger as it is moved across the touch pad **150**. The control circuitry **160** can also report this information in a form that can be used by a computing device such as a media player. By way of example, the control circuitry may include an ASIC (application specific integrated circuit).

[**0101**] Referring to **FIG. 13**, a radial touch pad **178** (rather than an angular touch pad as shown in **FIG. 12**) will be discussed in accordance with one embodiment. The touch pad **178** may be divided into several independent and spatially distinct button zones **180** that are positioned radically from the center **182** of the touch pad **178** to the perimeter **184** of the touch pad **178**. Any number of radial zones may be used. In one embodiment, each of the radial zones **180** represents a radial position in the plane of the touch pad **178**. By way of example, the zones **180** may be spaced at **5** mm increments. Like above, each of the button zones **180** has one or more electrodes **186** disposed therein for detecting the presence of an object such as a finger. In the illustrated embodiment, a plurality of radial electrodes **186** are combined to form each of the button zones **180**.

[**0102**] Referring to **FIG. 14**, a combination angular/radial touch pad **188** will be discussed in accordance with one embodiment. The touch pad **188** may be divided into several independent and spatially distinct button zones **190** that are positioned both angularly and radically about the periphery of the touch pad **188** and from the center of the touch pad **188** to the perimeter of the touch pad **138**. Any number of combination zones may be used. In one embodiment, each of the combination button zones **190** represents both an angular and radial position in the plane of the touch pad **188**. By way of example, the zones may be positioned at both 2 degrees and 5 mm increments. Like above, each of the combination zones **190** has one or more electrodes **192** disposed therein for detecting the presence of an object such as a finger. In the illustrated embodiment, a plurality of angular/radial electrodes **192** are combined to form each of the button zones **190**.

[**0103**] Furthermore, in order to provide higher resolution, a more complex arrangement of angular/radial electrodes may be used. For example, as shown in **FIG. 15**, the touch pad **200** may include angular and radial electrodes **202** that are broken up such that consecutive zones do not coincide exactly. In this embodiment, the touch pad **200** has an annular shape and the electrodes **202** follow a spiral path around the touch pad **200** from the center to the outer perimeter of the touch pad **200**. The electrodes **202** may be grouped together to form one or more distinct button zones **204**.

[**0104**] It should be noted that although the touch pads herein are all shown as circular that they may take on other forms such as other curvilinear shapes (e.g., oval, annular